



**CITY OF HAYWARD**  
**AGENDA REPORT**

AGENDA DATE 10/26/99  
AGENDA ITEM 5  
WORK SESSION ITEM \_\_\_\_\_

**TO:** Mayor and City Council  
**FROM:** Director of Public Works  
**SUBJECT:** Ruus Road Sanitary Sewer Line Replacement Project - Approval of Council Change Order and Appropriation of Additional Funds.

**RECOMMENDATION:**

It is recommended that the City Council:

1. Approve Council Change Order No. C-1 in the amount of \$166,300 which deletes a portion of the work to be done by pipe bursting and adds additional work using micro-tunneling method.
2. Authorize an additional appropriation of \$166,300 from the Sewer Collection System Replacement Fund for the project.

**BACKGROUND:**

The sanitary sewer main at Ruus Road between Folsom Avenue and Industrial Parkway has surcharge problems during wet-weather flows. Under wet weather conditions, the sewage occasionally spills through manhole lids and onto City streets. The existing 8-inch sewer main, identified in the Wastewater Collection System Master Plan as hydraulically deficient, will be replaced with 15-inch sewer main to accommodate the peak flows and abate surcharges in the existing overloaded sanitary sewer line.

Due to the depth of the existing sanitary sewer systems and the need for least disturbance to the streets and traffic, two trenchless construction methods were considered for this project; micro-tunneling and pipe bursting. These two methods are the new trenchless technology for utility improvement, and will minimize traffic impacts with less excavation and decreased construction time.

In the original bid package, two trenchless alternatives were included for this project, one using micro-tunneling method, and the other using pipe bursting method. The contract was to be awarded based on the lowest bid, regardless of the chosen method. Two bids were received for the micro tunneling alternative, with the low bid at \$1,897,475, while four bids were received for the pipe bursting method, with the low bid at \$1,279,300. That made the low bid for pipe bursting about one third less costly than the low bid for micro-tunneling.

On April 6, 1999, the City Council awarded the construction contract to California Trenchless, Inc., based on using the pipe bursting method. The work consisted of replacing 2,820 feet of the existing 8-inch sanitary sewer line with new 15-inch sanitary sewer line and constructing 10 manholes on Ruus Road between Folsom Avenue and Industrial Parkway.

At the initial phase of the project, the Contractor encountered a problem that made it impossible for him to proceed using the pipe bursting method. Investigation of the existing deep sewer pipe revealed that some of the timber pilings that had been used for the original construction of the deep sewer line were not completely taken out, but rather were cut off and removed at about six feet from the ground level leaving the lower portions flanking the pipe in place. The timber piling made it impossible for pipe bursting to work. The contractor then left that particular section and moved on to other sections that did not have the piling.

At this time, the Contractor has successfully replaced 1,640 feet of 8-inch sewer line with 15-inch sewer line using pipe bursting. However, because the condition stated previously prevents successful pipe bursting on the initial section, an alternative solution is needed. After further investigation, staff has determined that micro-tunneling would be the preferred alternative, and has developed a new alignment for the replacement of the remaining portion of 8-inch sewer line to avoid the existing timber piling. The new alignment is about 1,450 feet long.

The existing Contractor has submitted a proposal to do the micro-tunneling work in the new alignment in the amount of \$630,000. This cost is less than the comparable unit cost for the micro-tunneling alternative under the original bid package. Therefore, staff has determined the proposal to be fair and reasonable for the work required.

A Council change order, which deletes the originally approved pipe bursting work and replaces it with the micro-tunneling proposal, is required. The difference in deleted work and added work is \$166,300.

**Project Cost:**

Design & Survey	\$140,000
Contract Construction (Existing Contract)	\$1,279,300
Council Change Order No. C-1 (This action)	\$166,300
<u>Inspection &amp; Administration</u>	<u>\$80,700</u>
Total:	\$1,666,300

**Funding:**

A total of \$1,500,000 has been appropriated for this project in the Sewer Collection System Replacement Fund in the 1999/2000 Capital Improvement Program. An additional appropriation of \$166,300 is necessary to complete this project. Sufficient monies are available in the Fund for this purpose.

**Schedule:**

The following tentative project schedule has been developed for the remaining construction:

Approve Council Change Order No. C-1	October 26, 1999
Begin Construction	January, 2000
Construction Completion	April, 2000

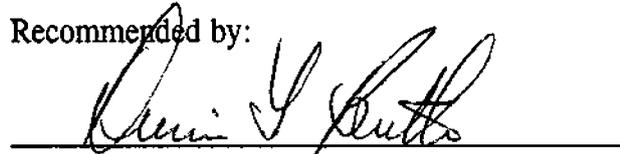
Start of construction is affected by the long lead-time for the pipe material suitable for use in micro-tunneling.

Prepared by:



Alex Ameri, Deputy Director of Public Works

Recommended by:



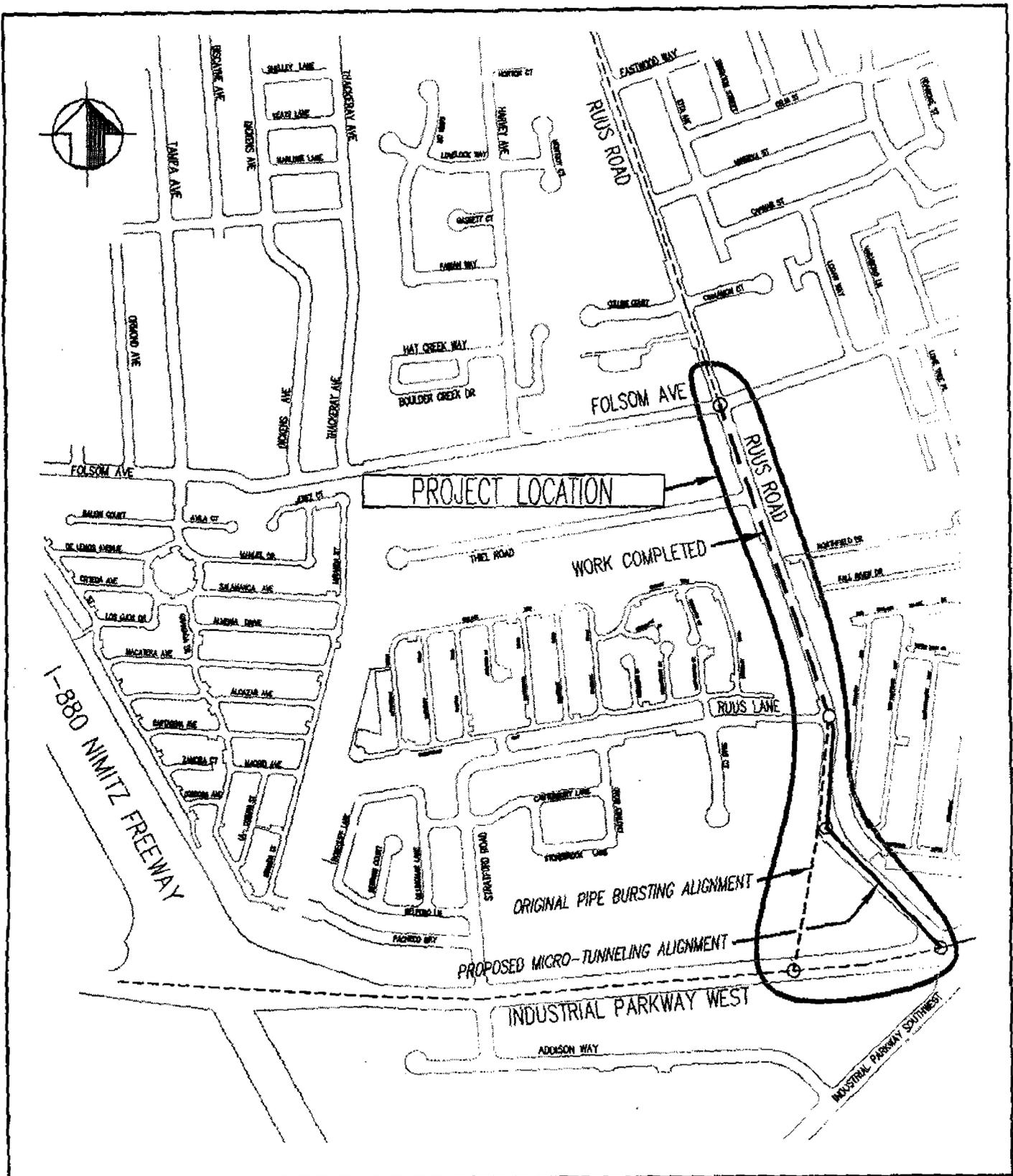
Dennis L. Butler, Director of Public Works

Approved by:



Jesús Armas, City Manager

Attachment: Exhibit A - Project Location Map



PROJECT LOCATION MAP

RUUS ROAD SANITARY SEWER LINE REPLACEMENT PROJECT  
 PROJECT NO. 614-7604

EXHIBIT "A"

**DRAFT**

*Am 10-14-99*

HAYWARD CITY COUNCIL

RESOLUTION NO. \_\_\_\_\_

Introduced by Council Member \_\_\_\_\_

RESOLUTION APPROVING COUNCIL CHANGE ORDER  
NO. C-1 TO CONTRACT FOR THE RUUS ROAD SANITARY  
SEWER LINE REPLACEMENT PROJECT, PROJECT NO.  
7604

BE IT RESOLVED that the City Council hereby approves Council Change Order No. C-1 in the amount of \$166,300 which deletes a portion of the work to be done by pipe bursting and adds additional work using micro-tunneling method, to the contract for the Ruus Road Sanitary Sewer Line Replacement Project, Project No. 7604.

IN COUNCIL, HAYWARD, CALIFORNIA \_\_\_\_\_, 1999

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST: \_\_\_\_\_

City Clerk of the City of Hayward

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney of the City of Hayward

**DRAFT**

*DM 3-21-99*

HAYWARD CITY COUNCIL

RESOLUTION NO. \_\_\_\_\_

Introduced by Council Member \_\_\_\_\_

RESOLUTION AMENDING RESOLUTION 99-110, AS AMENDED, THE BUDGET RESOLUTION FOR CAPITAL PROJECTS FOR FISCAL YEAR 1999-2000, RELATING TO AN APPROPRIATION OF FUNDS FOR THE RUUS ROAD SANITARY SEWER LINE REPLACEMENT PROJECT, PROJECT NO. 7604

BE IT RESOLVED by the City Council of the City of Hayward that Resolution No. 99-110, as amended, the Budget Resolution for Capital Projects for fiscal year 1999-2000, is hereby further amended by appropriating an additional \$166,300 from the Sewer Collection System Replacement Fund, Fund 614, to the Ruus Road Sanitary Sewer Line Replacement Project, Project No. 7604.

IN COUNCIL, HAYWARD, CALIFORNIA \_\_\_\_\_, 1999

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST: \_\_\_\_\_  
City Clerk of the City of Hayward

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney of the City of Hayward